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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/540,652

04/17/2006

Jens Schneider

10191/4257

7198

26646

7590

04/14/2009

KENYON & KENYON LLP  
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EXAMINER

RIPA, BRYAN D

ART UNIT

PAPER NUMBER

4111

MAIL DATE

DELIVERY MODE

04/14/2009

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/540,652	<b>Applicant(s)</b> SCHNEIDER ET AL.	
	<b>Examiner</b> BRYAN D. RIPA	<b>Art Unit</b> 4111	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 11-24 is/are pending in the application.
- 4a) Of the above claim(s) 17-24 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 11-16 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 23 June 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. ____.                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>6/23/05;10/6/08</u> .   | 6) <input type="checkbox"/> Other: ____.                          |

## **DETAILED ACTION**

### ***Election/Restrictions***

Applicant's election without traverse of Group 1, i.e. claims 11–16, in the reply filed on Feb. 6, 2009 is acknowledged.

### ***Priority***

Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

### ***Specification***

The disclosure is objected to because of the following informality:

- In ¶4 of the specification, it appears to state that the protective layer of the measuring sensor of the present invention is unable to be applied in thicknesses greater than 250 µm; however, later in ¶13 of the specification, and even in claim 15, the thickness of the protective layer is described as being greater than 250 µm. It is suggested that applicant amend the specification so as to clarify the statement in ¶4 to be in accordance with the rest of the specification or to explain the apparent discrepancy.

Appropriate correction is required.

### ***Claim Objections***

Claim 11 is objected to because of the following informalities:

- The phrase "the a protective layer" is used in the fourth line of the claim. The "a" is unnecessary and should be removed.
- The phrase stating "wherein the protective layer includes ..." in the fifth through eighth lines of the claim is unclear as to whether the additives are required in only the  $\delta$ -aluminum oxide or both the  $\delta$ -aluminum oxide and the  $\gamma$ -aluminum oxide. Because the examiner believes it is applicant's intent to require the additive in both types of aluminum oxide, it is suggested that the applicant amend the claim either through the use of punctuation or additional language so as to clearly denote this.

Appropriate correction is required.

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

1. Claim 11 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The scope of claim 11 is unclear because the limitation regarding the composition of the protective layer and the addition of additives (see claim 11 lines 5–8) could be reasonably interpreted in two alternative ways. Specifically, this limitation

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could be read to require the additives to be present when the protective layer is made of either  $\delta$ -aluminum oxide or  $\gamma$ -aluminum oxide or, alternatively, to apply to the protective layer containing  $\delta$ -aluminum oxide only.

Please note, with respect to claim 11 the examiner is interpreting the claim to require the additive to be present in the protective layer regardless of whether the layer is made of  $\delta$ -aluminum oxide or  $\gamma$ -aluminum oxide. The examiner believes this interpretation to be most in accord with applicant's intended claim scope as evidenced by ¶13 of Applicant's disclosure.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

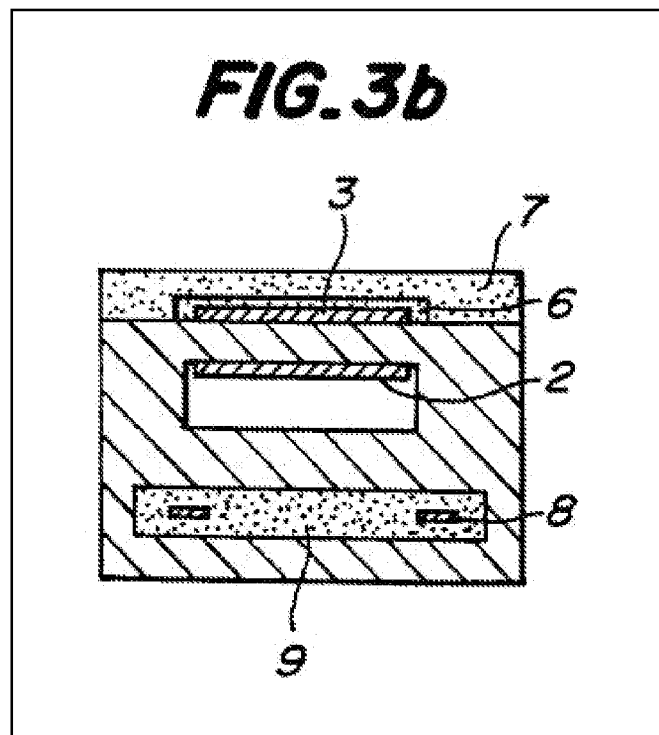
(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 11–16 are rejected under 35 U.S.C. 102(b) as being anticipated by Ogasawara et al. (U.S. Pat. No. 5,271,821) (hereinafter referred to as “OGASAWARA”).

Regarding claim 11, OGASAWARA teaches a measuring sensor for determining a physical property of a measured gas (see col. 1 lines 27–39 discussing the measuring sensor being an oxygen sensor for determining the oxygen concentration in an exhaust gas of an automobile and figure 3b below) comprising a sensor element (see col. 2 lines

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33–41 and portion of figure 3b below upper protective layer 7) capable of being exposed to the measured gas, and a protective layer coating the sensor element (upper protective layer 7) capable of protecting against harmful components in the measured gas, wherein the protective layer includes  $\gamma$ -aluminum oxide having an additive of the alkaline earth group (see col. 4 lines 12–16 and col. 7 lines 5–9 teaching the use of  $\gamma$ -aluminum oxide with magnesia particles to form the protective layer).



Regarding claim 12, OGASAWARA teaches the measuring sensor for determining a physical property of a measured gas wherein the measuring sensor is for determining an oxygen concentration in an exhaust gas of an internal combustion engine (see discussion above with respect to claim 11).

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Regarding claim 13, OGASAWARA teaches the measuring sensor for determining a physical property of a measured gas wherein the additive is a metal oxide of an alkaline earth group (see discussion above with respect to claim 11).

Regarding claims 14 and 15, OGASAWARA teaches the measuring sensor for determining a physical property of a measured gas wherein the protective layer is extremely porous (see col. 3 lines 54–67 teaching the protective layer being porous) and has a great layer thickness with the thickness of the protective layer being greater than 250  $\mu\text{m}$  (see col. 3 lines 66–67 teaching the protective layer having a thickness of 10 to 500  $\mu\text{m}$ ).

Regarding claim 16, OGASAWARA teaches the measuring sensor for determining a physical property of a measured gas wherein the sensor element includes a ceramic element made of solid electrolyte layers (see ceramic solid electrolyte layers above between reference electrode 2 and measuring electrode 3 and also between reference electrode 2 and insulation layer 9; see also col. 3 lines 8–18 teaching the sensor element body being formed of an oxygen ion conductive electrolyte), an outer electrode situated on the a surface of the ceramic element (see measuring electrode 3 in figure 3b above), and a porous protective lining coating the outer electrode (see underlying porous protective layer 6 above) and the protective layer covering the porous protective lining (see upper protective layer 7 covering underlying porous protective layer 6 in figure 3b above).

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to BRYAN D. RIPA whose telephone number is 571-270-7875. The examiner can normally be reached on Monday to Friday, 9:00 AM to 5:00 PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Alexa Neckel can be reached on 571-272-1446. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/B. D. R./  
Examiner, Art Unit 4111

/Alexa D. Neckel/  
Supervisory Patent Examiner, Art Unit 1795